



CLAIMS:

What is claimed is:

1  1. A nozzle comprising;
2 a body member having an inlet end and an outlet end, the body member
3 defining an angular bore and a straight bore, the angular bore intersecting the straight bore and
4 terminating at an inlet end such that fluid communication exists between the inlet end of the
5 angular bore and the straight bore;
6 a tube concentric with the straight bore and terminating substantially flush with
7 the outlet end of the body member and in fluid communication with an inlet end of the straight
8 bore wherein the tube and body member in combination define an annular channel around the
9 tube and a plurality of radially spaced outlet ports distributed around a central outlet port.

1 2. The nozzle of claim 1 wherein the body member is stainless steel.

1 3. The nozzle of claim 1 wherein the outlet end of the body member defines the
2 radially spaced outlet ports and a center bore of a size to receive and engage the tube such that
3 fluid communication through the center bore around the tube is prevented.

1  4. The nozzle of claim 1 wherein the body member defines a single hole in the
2 outlet end, and further comprising:

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3 a flange member coupled to the tube and concentric with the tube the flange
4 member engaging a portion of the body defining the single hole, the flange member for causing
5 annular disbursement of fuel around the central outlet port.

1 5. The nozzle of claim 1 further comprising:
2 a first coupling member engaging the inlet end of the angular bore and defining
3 a fuel inlet port; and
4 a second coupling member engaging the inlet end of the straight bore and
5 defining an oxidizing agent inlet port, the second coupling member coupled to the tube.

1 6. The nozzle of claim 5 wherein a flow path of an oxidizing agent within the
2 nozzle is linear.

1 7. A nozzle comprising:
2 a body member defining an angular bore and a straight bore;
3 a first coupling member engaging an inlet end of the angular bore;
4 a second coupling member engaging an inlet end of the straight bore;
5 a tube coupled to the second coupling member and substantially concentric with
6 straight bore wherein the nozzle defines a plurality of radially spaced outlet ports around a
7 central outlet port.

1 8. The nozzle of claim 7 wherein the central outlet port and the plurality of radially
2 spaced outlet ports are substantially coplanar.

1 9. The nozzle of claim 7 wherein the plurality of annularly spaced outlet ports are
2 defined by the body member.

1 10. The nozzle of claim 7 wherein the plurality of annularly spaced outlet ports are
2 defined by a flange member.

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1 11. The nozzle of claim 7 wherein the plurality of annularly spaced outlet ports are
2 defined by a conjunction of the body member and a flange member.

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